

What is claimed is:

1. A capacity type sensor comprising:
a first electrode;
5 a second electrode which is disposed opposedly to said first electrode;
a guard electrode which is disposed opposedly to said first electrode;
a potential equalizing means to make the potential difference between said first electrode and said guard electrode close to zero; and
a capacity type sensor detecting means to detect impedance change between
10 said first electrode and said second electrode.
2. The capacity type sensor according to claim 1, wherein said guard electrode is disposed between said first electrode and said second electrode.
- 15 3. The capacity type sensor according to claim 1 further comprising a first supporting member to fix said guard electrode and said first electrode.
4. The capacity type sensor according to claim 1 further comprising a second supporting member to fix said second electrode and said guard electrode.
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5. The capacity type sensor according to claim 1 further comprising a substrate on which either one of said first electrode or said second electrode, and said guard electrode are formed, wherein said guard electrode is made out of semiconductor layer which has different conductivity type from said first electrode or said second electrode.
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6. The capacity type sensor according to claim 1, wherein said first electrode or said second electrode includes a thin film portion which is constituted by a depression at the central part of lower side of said first or second electrode, and said thin film portion is a vibrating electrode.
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7. The capacity type sensor according to claim 6, wherein said first electrode or said second electrode which is formed as the thin film portion is a vibrating electrode.
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8. The capacity type sensor according to claim 1, wherein at least one of said first electrode and said second electrode is the vibrating electrode.

5 9. The capacity type sensor according to claim 1, wherein both of said first electrode and said second electrode are fixed electrodes.

10 10. A capacity type sensor comprising:
a first electrode and a second electrode which are opposingly disposed each other and an area of either one of said first and second electrode is made narrower than another; and
a supporting member which is disposed outside of outer periphery of one of said electrodes with a narrower area to support another one of said electrodes with a wider area.

15 11. The capacity type sensor according to claim 10 further comprising a substrate, wherein said supporting member supports said electrode with the wider area on said substrate.

20 12. The capacity type sensor according to claim 11, wherein either one of said first and second electrodes is disposed on said substrate, and a third supporting member is disposed between said substrate and another one of said electrodes which is not disposed on said substrate.

25 13. The capacity type sensor according to claim 12, wherein an opening portion is formed at the central part of said substrate, and said electrode formed on said third supporting member is the vibrating electrode.

30 14. The capacity type sensor according to claim 10, wherein either one of said first and second electrodes is disposed on another one of said first and second electrodes and,
said capacity type sensor further comprising a fourth supporting member which supports said another one of said electrodes on said one of said electrodes.

15. The capacity type sensor according to claim 14, wherein said electrode with the narrower area is disposed on said electrode with the wider area,

5 said capacity type sensor further comprising a fifth supporting member which is formed on said electrode with the wider area, and an insulating member which is supported by said fifth supporting member, wherein said electrode with the narrower area is disposed on said insulating member.

16. The capacity type sensor according to claim 15 further comprising:

10 a guard electrode which is disposed between said fifth supporting member and said insulating member;

a potential equalizing means to make the potential difference between said first electrode and said guard electrode close to zero; and

15 a capacity type sensor detecting means to detect impedance change between said first electrode and said second electrode.